

The regular meeting of the Board of Directors of The Miami Conservancy District (MCD) sitting as the Board of Directors of The Aquifer Preservation Subdistrict (APS) was called to order at 10:35 a.m. by Mark G. Rentschler, President, with Beth G. Whelley, Vice President, and Michael H. van Haaren, member, present.

Members of the staff in attendance: MaryLynn Lodor, General Manager; James B. Casper, Manager, Operations and Maintenance; Michael P. Ekberg, Manager, Water Resources Monitoring and Analysis; Daniel K. Foley, Great Miami Riverway Director; Sarah Hippensteel Hall, Manager, Watershed Partnerships; Kenneth P. Moyer, Treasurer; Donald P. O'Connor, Chief Engineer; Shannon E. Phelps, Manager of Administration; and Rhonda K. Snyder, Secretary.

Legal counsel in attendance: John M. Hoopingarner, McMahon DeGulis LLP, and Lee A. Slone, McMahon DeGulis LLP.

Guests in attendance at the regular meeting: None

COMPLIANCE WITH SUNSHINE LAW AND BYLAWS

The meeting was held in compliance with the Sunshine Law and MCD and Subdistrict Bylaws. The meeting information was posted on MCD's website. Miami Valley news media and individuals requesting such notification were notified of the meeting by electronic mail dated June 13, 2023.

MINUTES

The Minutes of the Board of Directors meeting held on March 22, 2023, were provided to members of the Board for review and comment.

M 2023-152

The Board of Directors, on motion by Ms. Whelley and seconded by Mr. van Haaren, unanimously approved the Minutes for March 22, 2023.

Aquifer Preservation Subdistrict Strategic Planning

MCD staff are performing a strategic planning review/update for activities conducted under the Aquifer Preservation Subdistrict (APS). The process began with a review of the history of the APS followed by a SWOT analysis. MCD staff are now reviewing all activities conducted by the APS and determining whether or not the activities should stop, continue as they are, or continue with modifications. The process will also consider past input received from the public to determine whether or not the APS is adequately addressing those priorities. Ultimately, this process will culminate in an updated work plan for the APS.

Source Water Protection

On June 28, MCD, in partnership with the Miami Valley Regional Planning Commission (MVRPC), will host a Watershed Network meeting to discuss source water protection, planning, and emergency management. The meeting targets people involved with the source water protection program in the Great Miami or Little Miami river watersheds. Speakers will highlight current state and local programs and resources that are available to source water managers.

The meeting will feature a roundtable discussion of all participants to share needs and concerns to handle source water protection in anticipation of a tabletop exercise later in the year.

USDA Conservation Reserve Enhancement Program

MCD is working with state and local agencies to bring the Conservation Reserve Enhancement Program (CREP) to the region to foster conservation with private landowners and address nutrient runoff. Of Ohio watersheds without a CREP, the Great Miami River watershed has the largest distribution of agricultural land and, is one of the largest contributors of nutrients to the Ohio River basin. A conceptual plan for a combined Great and Little Miami CREP is under review by the United States Department of Agriculture Farm Service Agency (USDA/FSA). If the concept plan is approved, MCD has offered to assist in the development of a proposal to leverage federal and non-federal funds to target specific state, regional, or nationally significant conservation concerns. In exchange for removing environmentally sensitive land from production and establishing permanent resource-conserving plant species, farmers and ranchers are paid an annual rental rate along with other federal and non-federal incentives as specified in each CREP agreement. Participation is voluntary, and the contract period is typically 10–15 years.

PFAS in the Great Miami River Buried Valley Aquifer System

MCD provided funding for a United States Geologic Survey (USGS) study of the occurrence of per-and polyfluoroalkyl substance (PFAS) in the buried valley aquifer system of the Great Miami River Watershed. The study is now complete and the report has been published by the USGS. In the autumn of 2019 and spring of 2020, USGS staff sampled 23 previously sampled wells in the Great Miami buried valley aquifer for 24 different PFAS compounds.

The results of the sampling showed detections of one or more PFAS compounds in 11 of the 23 wells sampled. PFAS concentrations of detected compounds 1 to 16 nanograms per liter (ng/L) or parts per trillion. Most of the compound detections were at concentrations that were well below any published human health advisory levels. The exceptions were one detection of PFOS at 1.9 ng/L and one detection of PFOA at 2.1 ng/L. PFOS has a drinking water maximum contaminant level of 0.02 ng/L and PFOA has an MCL of 0.004 ng/L. The compound PFBS was the most commonly detected PFAS compound. It was detected in groundwater sampled from eight wells.

The study hinted at potential correlations between PFAS presence and younger groundwater age, toxic groundwater conditions, specific conductance, and predominantly urban land use.

Water Quality Benefits of a State Park

MCD provided funding and technical assistance for a study of the impacts of forested lands surrounding Acton Lake and Acton Lake itself on the water quality of several streams as well as groundwater that flow into the lake. Acton Lake is in Hueston Woods State Park which straddles the boundary between Butler and Preble counties near Oxford, Ohio. Surrounding land is dominantly row crop agriculture and several small streams originate in the agricultural lands outside of the park, flow through forested land inside the park, and empty into Acton Lake. The study was carried out by Dr. Bartosz Grudzinski of Miami University and three of his graduate students.

The results of the study showed that public lands that primarily consist of forest cover can be effectively utilized to improve water quality. However, natural areas may also result in

unexpected water quality trends that can be undesirable in some areas. For example, the presence of a human-constructed lake in the park increased phosphorus export out of the park.

A copy of the study report is available on the MCD website.

2022 Water Quantity Report

MCD staff recently published a report titled *2022 Water Quantity Report for the Great Miami River Watershed* (MCD Report No. 2022-35). The report summarizes annual precipitation, runoff, storage events at MCD flood protection dams, groundwater levels, as well as water use for the Great Miami River Watershed in 2022. The report also contextualizes 2022 data within an analysis of long-term water data trends. The report can be accessed on the MCD website.

Observation Wells

MCD staff collect depth to water measurements at 93 observation wells within the Great Miami River Watershed. Of these 93 observation wells 32 wells are equipped with loggers that measure depth to water and store the data electronically. The remaining 61 wells are measured manually. Since the last Board meeting, MCD staff made monthly field visits to each of the observation wells to download the data from loggers or make a manual depth to water measurement. All of the data was imported into the AQUARIUS cloud system.

The data at MCD observation well BU-70 (located in Hamilton) show the above normal precipitation in March 2023 resulted in recharge to the buried valley aquifer system near the well. Groundwater levels in March increased from below normal to above normal conditions. However, precipitation in April and May fell below normal and groundwater levels in the well declined during both months.

Monitoring Wells

MCD staff are in the process of sampling 13 monitoring wells installed in the Great Miami buried valley aquifer system for a variety of parameters including major ions, nutrients, metals, bacteria, and volatile organic compounds. In addition to these parameters, MCD will have groundwater samples analyzed by Pace Analytical for 36 PFAS compounds. All of the results for 2023 groundwater sampled will be summarized in a report.

Nutrient Monitoring Stations

MCD operates four automated nutrient sampling stations in the Great Miami River Watershed. Since the last Board meeting in September, MCD staff visited each of the sampling stations 14 times to collect samples. The samples were analyzed by the laboratory at the Dayton wastewater treatment plant. Analytical data from the laboratory was imported into the AQUARIUS cloud system. The data from the sampling stations is used by MCD staff to track long-term trends in nutrient concentrations in the Great Miami, Mad, and Stillwater rivers.

MCD staff repaired a leak at the Mad River nutrient sampling station located at Huffman Dam in May. The leak was caused when debris floating down the river became entangled with the sampling pump in the river channel. The debris pulled the pump loose from its mooring and tore piping from the pump to the sampling tank in the gage house.

Bacteria Monitoring for Great Miami Riverway

MCD working in collaboration with the University of Dayton developed a web application that nowcasts river bacteria levels to inform paddlers about river conditions near Dayton. The web application is on the Great Miami Riverway website. The nowcast site uses recent rainfall

and river flow to predict E. coli levels at two sites, Huffman Dam and the Dayton Rowing Club. As a check on the performance of the nowcast site, MCD staff collect periodic samples between May 1 and October 31 at each site. The samples are analyzed by the City of Dayton water treatment plant laboratory for E. coli.

Partnerships

- Facilitated one Listening Session at Ohio-Kentucky-Indiana Regional Council of Governments (OKI), and hosted one Listening Session at MCD, to gather input from stakeholders for the Ohio River Basin Alliance Restoration Plan.
- Participated in a planning meeting to discuss multi-jurisdiction interest in an MS4 and stormwater management partnership.
- Submitted a letter of support to MVRPC for their work to apply for funds from U.S. EPA to conduct Climate Pollution Reduction planning for the Dayton-Kettering Metro Area.
- Attended Five Rivers MetroParks meeting on their plan for Climate Change Mitigation.
- A Natural Resource Assistance Committee #4 (Montgomery County) meeting to set next funding round for Clean Ohio Conservation funds.
- Planning meeting for the Environmental Leader Development Program.
- Attended a board meeting of the Water Management Association of Ohio.
- Attended a board meeting of the Ohio Watershed Professionals Association.

GRANT FUNDING UPDATE

The following is a status update regarding a grant application previously approved by the Board of Directors.

Project Title: *Great Miami River Watershed Report Card*

Description: MCD collects extensive data on the Great Miami River Watershed's surface and groundwater resources including nutrient and other nonpoint source pollution. This project will synthesize and disseminate that complex data set into simple scores that can be communicated to decision-makers, the general public, and the contributors to nutrient discharges. Similar to a school report card this project will develop performance-driven numeric grades that reflect the status of the water quality, and create a design that is easy to understand by the general public.

Total Project Cost: \$10,000.00

Grant Amount Requested: \$5,000.00

Source: Ohio Environmental Protection Agency, Environmental Education Fund

The Miami Conservancy District Match: \$5,000.00

Other Participants: N/A

Status: Application was submitted on January 17, 2023. Staff was notified on April 7 that the grant was not awarded funding.

FUTURE BOARD MEETINGS

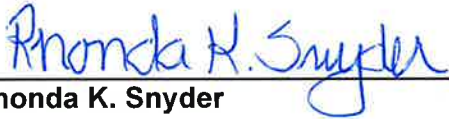
At the December 2022 meeting, the Board members set the following dates for the 2023 regular meetings of the Board of Directors of The Miami Conservancy District sitting as the Board of Directors of Aquifer Preservation Subdistrict: March 8 (rescheduled to March 22), June 21, September 20, and December 13.

ADJOURN

There being no further business, the meeting was adjourned by unanimous consent.

ATTEST:

APPROVED:



Rhonda K. Snyder
Secretary



Mark G. Rentschler
President